

CHAPTER 3 - COMPLIANCE SUMMARY

WIPP is required to comply with applicable federal and state laws and DOE Orders. Documentation of requisite federal and state permits, notifications, and applications for approval is maintained by the WTS Environment, Safety, and Health Department. Regulatory requirements are incorporated in facility plans and implementing procedures.

3.1 Compliance Overview

In 2001, WIPP maintained compliance with applicable federal and state environmental regulations. Section 3.2 contains a listing of environmental statutes/regulations applicable to WIPP. Section 3.3 describes significant accomplishments and ongoing compliance activities relative to the regulations most pertinent to WIPP's development. A detailed breakdown of WIPP's compliance with environmental regulations is available in the WIPP Biennial Environmental Compliance Report (DOE/WIPP 99-2171).

3.2 Compliance Status

A summary of WIPP's compliance with major environmental regulations is presented in Table 3.3. Applicable DOE Orders are found in Table 3.4, and a list of WIPP permits appears in Table 3.5.

3.2.1 Comprehensive Environmental Response, Compensation, and Liability Act

No release sites have been identified at WIPP that would require cleanup under the provisions of the CERCLA. CERCLA establishes a comprehensive federal strategy for responding to, and establishing liability for, releases of hazardous substances from a facility to the environment. Any spills of hazardous substances that exceed a reportable quantity must be reported to the National Response Center under the provisions of Section 103 of CERCLA and 40 CFR Part 302. Hazardous substance cleanup procedures are specified in the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300).

In May 2001, a release of lead was reported to the National Response Center, the SERC, and the Eddy County Local Emergency Planning Committee (Follow-On Notification for Reportable Release, dated May 30, 2001). Subsequent analysis of the release determined that it was not reportable under CERCLA, or any other regulations, due to the lead particle size and the containment of the release to the WIPP property. Appropriate remediation of the release was completed. Soil samples showed no elevated lead levels and confirmed completion of clean-up activities. Follow-on reports sent to the three agencies explained the actions taken at the release location and the basis for the nonreportable determination. No further actions are required at this location.

Waste Isolation Pilot Plant 2001 Site Environmental Report

DOE/WIPP 02-2225

Superfund Amendments and Reauthorization Act of 1986

WIPP is required by Sections 311 and 312 of the Superfund Amendments and Reauthorization Act (SARA) Title III (also known as the Emergency Planning and Community Right-to-Know Act) to submit (1) a list of chemicals for which a material safety data sheet (MSDS) is required, and (2) an Emergency and Hazardous Chemical Inventory Form (Tier II Form) to the State Emergency Response Commission, the Local Emergency Planning Committee, and the fire departments with jurisdiction over the facility.

The list of chemicals provides external emergency responders with information they may need when responding to a hazardous chemical emergency at WIPP. The Tier II Form, due on March 1 of each year, provides information to the public about hazardous chemicals that a facility has on site at any time during the year above threshold planning quantities. WIPP submits the list of chemicals and the Tier II Form to each fire department with which the CBFO maintains an MOU. WIPP also provides the list of chemicals and the Tier II Form to the LEPC and SERC, as well as the fire departments that have MOUs with WIPP.

Accidental Releases of Reportable Quantities of Hazardous Substances

During 2001, there were no releases of hazardous substances exceeding the reportable quantity limits. The driver for accidental release reporting is Section 304 of SARA (or Section 304 of the Emergency Planning and Community Right-to-Know Act).

3.2.2 Federal Acquisition, Recycling, and Pollution Prevention

In July 1995, WIPP adopted a systematic and cost-effective APP for the promotion and procurement of products containing recovered materials. Affirmative procurement is designed to "close a loop" in the waste minimization and recycling processes by supporting the market for materials collected through recycling and salvage operations.

Affirmative procurement programs are mandated by the RCRA, Section 6002(i), which requires federal procuring departments to establish material preference programs targeted to purchase recycled materials. Executive Order 13101 and the EPA guidelines in 40 CFR Part 247 provides additional guidance for implementing affirmative procurement programs at federal facilities.

Affirmative procurement programs must include four elements: (1) a preference program, (2) a promotion program, (3) an estimation, certification, and verification procedure, and (4) annual review and monitoring procedures. The purchase and use of recycled products at WIPP will help foster markets for recovered materials and reduce the amount of solid waste requiring disposal.

WIPP's Affirmative Procurement Program Plan is defined WP 02-EC.07. In 2001, WTS purchased 99.99 percent of the items identified in the EPA guidelines through this

Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225

program. WTS also purchased numerous items which were not required by the EPA program but, nevertheless, contained recovered materials.

Pollution Prevention Programs

Pollution prevention activities during 2001 included the following Pollution Prevention Opportunity Assessment (PPOA) activities:

- PPOA 2000-01 – Chemical Use Reduction. An assessment was performed in 2001 to evaluate (1) concerns of using similar chemicals for the same tasks, (2) benefits of implementing and expanding an online, electronic MSDS system at WIPP, (3) developing an approved chemicals list, and (4) increasing product substitution. This project was accepted and is currently in progress. Thirty-four hazardous products have been replaced/eliminated by nonhazardous products. Of these 34 products, 25 products were replaced with one product.
- PPOA 2001-02 – Office Supplies. It was determined that implementation of changes to the office supply program, either by an on-site store or a closed book ordering system would reduce costs and the amount of items purchased, ensure only Affirmative Procurement items would be ordered, thus bringing the site in to full compliance with Executive Order 13101, and provide easier tracking of APP items.

Noteworthy P2 activities during 2001 included the following:

- WTS will continue to promote affirmative procurement strategies in the following ways: evaluate ways to improve data collection of affirmative program items on-line, complete bench marking of all successful programs at other DOE sites, and revise the WTS APP to include the 18 additional new items that were added in January 2001.
- Recycling – WIPP continued its mandatory recycling program (Table 3.1).

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

Table 3.1 - Materials Recycled at WIPP in 2001

Material	Mass
	Metric Tons
Office and mixed paper	11.33
Aluminum cans	0.37
Cardboard	5.56
Batteries	2.45
Oil	3.17
Scrap metal	132.50
Plastic	0.18
Toner Cartridges	0.85
Ethylene glycol	2.69
Computer equipment	4.71
Fluorescent bulbs and debris	0.11
Solvent (RCRA)	0.16
Miscellaneous items sold at auction 257, avoiding landfill disposal	N/A

3.2.3 Resource Conservation and Recovery Act

The RCRA (42 U.S.C. 321 et seq.) was enacted in 1976. Implementing regulations were promulgated in May 1980. This body of regulations ensures that hazardous wastes are managed and disposed of in a way that protects human health and the environment. The Hazardous and Solid Waste Amendments of 1984 prohibit land disposal of hazardous wastes unless treatment standards are met. The amendments also place increased emphasis on waste minimization activities and serve as a mechanism to enforce RCRA cleanup requirements.

Title 40 CFR Parts 280 and 281 address USTs containing petroleum products or hazardous chemicals. Requirements for UST management pertain to the design, construction, installation, and operation of USTs as well as notification and corrective action requirements in the event of a release and actions required for out-of-service USTs. The NMED was authorized by the EPA to regulate USTs. The annual registration fee for two USTs is submitted by July 1 of each year.

The NMED is authorized by the EPA to implement the RCRA program in New Mexico pursuant to the New Mexico Hazardous Waste Act. The technical standards for treatment storage and disposal facilities are outlined in 20.4.1.500 NMAC (incorporating 40 CFR Part 264). The hazardous waste management permitting program is

Waste Isolation Pilot Plant 2001 Site Environmental Report

DOE/WIPP 02-2225

administered through 20.4.1.900 NMAC (incorporating 40 CFR Part 270), which outlines the administrative aspects for processing permit applications and modifications.

WIPP was issued the HWFP on October 27, 1999. The operating conditions set forth in the permit were effective November 26, 1999. The HWFP authorized WIPP to receive, store, and dispose of CH TRU waste. Specifically, two storage units (the Parking Area and Waste Handling Building) and three underground Hazardous Waste Disposal Units are permitted for the management of CH TRU waste.

In the CY 2001, ten groups of HWFP Modifications were submitted to the NMED in accordance with 20.4.1.900 NMAC proposing approximately 27 changes to the HWFP. These modifications were processed to support economic and operational efficiencies at, not only the WIPP facility; but also to facilitate innovative technologies and simplify waste characterization and reduce employee exposure at the DOE TRU waste generator sites.

The NMED conducted an inspection at the WIPP facility on August 10, 2001, focusing on operational procedures for the receipt, management and storage of TRU waste. The inspectors observed no violations and concluded that the facility was in compliance with applicable regulations and permit conditions.

Hazardous Waste Generator Compliance

Nonradioactive hazardous waste is currently generated through normal facility operations, and is managed in Satellite Accumulation Areas and a "less-than-90-day" storage area. In addition, hazardous waste generated at WIPP is characterized, packaged, labeled, and manifested to an off-site treatment, storage, and disposal facilities in accordance with the requirements codified in 40 CFR Part 262.

WIPP Solid Waste Management Units and Areas of Concerns

The NMED issued the WIPP HWFP on October 27, 1999. Module VII of the permit contains the requirements for corrective action for the WIPP Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). The permit identified fifteen SWMUs requiring a RCRA Facility Investigation (RFI), three SWMUs not requiring a RFI (the Hazardous Waste Management Units), and eight AOCs in the 4,146 hectares (16 mi²) WIPP Land Withdrawal Area.

Solid Waste Management Units

The 15 SWMUs included in the permit that require a RFI are listed below:

- SWMU 001g (H-14/P-1 Mud Pits)
- SWMU 001h (H-15/P-2 Mud Pits)
- SWMU001j (P-3 Mud Pit)
- SWMU 001k (P-4 Mud Pit)
- SWMU 001l (WIPP-12/P-5 Drilling Mud Pits)

Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225

SWMU 001m (P-6 Mud Pit)
SWMU 001n (P-15 Mud Pit)
SWMU 001o (Badger Unit Drilling Mud Pits)
SWMU 001p (Cotton Baby Drilling Mud Pits)
SWMU 001q (DOE-1 Drilling Mud Pits)
SWMU 001s (ERDA 9 Mud Pit)
SWMU 001t (IMC 347 Mud Pit)
SWMU 001x (WIPP-13 Drilling Mud Pits)
SWMU 004a (Portacamp Storage Yard, West Side)
SWMU 007b (SW Evaporation Pond)

Areas of Concern

Following are the eight AOCs included in the permit.

AOC 001r (D-123 Mud Pit)
AOC 001u (IMC-376 Mud Pit)
AOC 001v (IMC-456 Mud Pit)
AOC 001w (IMC-457 Mud Pit)
AOC 001ac (DSP-207 Mud Pit)
AOC 001ae (IMC-377 Mud Pit)
AOC 010b (Waste Handling Shaft Sump)
AOC 010c (Exhaust Shaft Sump)

The SWMU program at WIPP began in 1994 under EPA regulatory authority. The NMED subsequently received regulatory authority from the EPA. A Phase 1 RFI was completed at WIPP during 1996 as part of a Voluntary Release Assessment.

The fifteen SWMUs and eight AOCs identified in the permit are associated with natural resource exploration activities prior to the development of the WIPP, early WIPP mineral assessment and geologic studies to support facility, or facility construction.

Samples were collected at some of the SWMUs as part of a RCRA Facility Assessment performed by WTS Environmental Compliance (NMED/DOE/AIP 94/1 1994). WIPP conducted three rounds of soil sampling at selected SWMUs one in 1995, a second in 1996, and a third in 2001. In the summer of 1995, soil samples were collected for initial characterization by the toxicity characteristic leaching procedure (TCLP). A second round of sampling at the same SWMUs was conducted in the summer of 1996 and involved collecting soil samples for total constituent analyses. A third round of sampling was requested by the NMED in 2001. This sampling event included collecting soil samples for total constituent analyses. SWMUs 001l, 001q, 001x, and 004a were sampled for barium, chromium, lead, and nickel. The NMED sent a representative to the site during soil sampling. He split samples with the sampling team and indicated that sampling was conducted according to the Sampling and Analysis Plan. The sampling event was concluded in August.

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

The total constituent analysis data were collected based on a request from the NMED to support the TCLP data collected in the initial sampling round. The NMED reviewed the sampling conducted by WIPP at the SWMUs and defined a list of SWMUs with constituents of concern and AOCs to be included in the permit. These SWMUs/AOCs and constituents of concern for the SWMUs were described in the Technical Support Document, Exclusion/Inclusion of SWMUs and Areas of Concern, Permit Module VII Correction Action for Solid Waste Management Units (NMED 1999).

Program Deliverables and Schedule

As required by Module VII, Table 1 RFI/CMS (Corrective Measures Study) Schedule of Compliance, WIPP is in compliance with the Permit reporting requirements. The key Permit deliverables and their dates of submittal as contained in Module VII, Table 1, include: (1) the first initiating activity occurred in August of 2001; and (2) the first Quarterly Report was submitted in November 2001.

Table 3.2 - WIPP's Key RCRA^a Permit Deliverables and Due Dates

Due Date	Deliverable(s)
August 2001	The NMED approved soil sampling activities. This initiated submittal of quarterly progress reports.
November 2001	Quarterly progress report for SWMU activities was submitted.

^a Resource Conservation and Recovery Act

The Sampling and Analysis Plan addresses the current permit requirements for an RFI of SWMUs and AOCs. It uses the results of previous investigations performed at WIPP and expands the investigations as required by the permit. As an alternative to the RFI specified in Module VII of the permit, current NMED guidance identifies an Accelerated Corrective Action Approach (ACAA) that may be used for any SWMU or AOC. This ACAA is used to replace the standard RFI Work Plan and Report sequence with a more flexible decision-making approach. The ACAA process allows a facility to proceed on an accelerated time line. The ACAA process can be entered either before or after an RFI Work Plan. According to the NMED's guidance, a facility can prepare an RFI Work Plan or ACAA for any SWMU or AOC. The NMED recognized that the facility was using the ACAA in lieu of the standard RFI in 2001.

The Sampling and Analysis Plan has two primary objectives: to define the extent of concentrations of hazardous constituents that exceed background concentrations in soil at specific SWMUs, and to perform a release assessment at specific AOCs to determine if hazardous constituents are present above background concentrations. The scope of this investigation is limited to the SWMUs and AOCs identified in the permit.

3.2.4 National Environmental Policy Act

The NEPA requires the federal government to use all practicable means to consider potential environmental impacts of proposed projects as part of the decision-making process. The NEPA dictates the public shall be allowed to review and comment on proposed projects that have the potential to significantly affect the environment. The NEPA also directs the federal government to use all practicable means to improve and coordinate federal plans, functions, programs, and resources relating to human health and the environment.

NEPA procedural objectives and public involvement requirements are detailed in the Council on Environmental Quality regulations implementing NEPA in 40 CFR Parts 1500 through 1508. The DOE codified its requirements for implementing the council's regulations in 10 CFR Part 1021. Further procedural NEPA compliance guidance is provided in DOE Order 451.1B. Title 10 CFR §1021.331 requires that, following completion of each EIS and its associated ROD, the DOE shall prepare a mitigation action plan that addresses mitigation commitments expressed in the ROD.

Day-to-day operational compliance with NEPA at WIPP is achieved through implementation of the CBFO/WTS National Environmental Policy Act Compliance Plan and the WIPP NEPA compliance procedure. These documents describe the roles and responsibilities of both the DOE NEPA Compliance Officer and the WTS NEPA Coordinator to evaluate the impacts of proposed projects at the site.

On January 29, 2001, the DOE issued an Environmental Assessment and a Finding of No Significant Impact for the proposal to conduct astrophysics and other basic science experiments at the WIPP site (DOE/EA-1340). The experiments would be conducted primarily in the WIPP underground, where the low background radiation would enhance the ability of detectors to identify some of the basic particles that are believed to make up the universe.

3.2.5 Clean Air Act

The Clean Air Act (42 U.S.C. 7401 et seq.) provides for the preservation, protection, and enhancement of air quality, particularly at locations of special interest such as areas of natural, recreational, scenic, or historic value.

Under Section 109 of the Clean Air Act, the EPA established the National Ambient Air Quality Standards for six "criteria" pollutants: sulfur dioxide, total suspended particulates, carbon monoxide, ozone, nitrogen oxides, and lead. These standards establish primary and secondary criteria for ambient air quality that the EPA considers necessary to protect public health and welfare.

The initial 1993 WIPP air emissions inventory was developed as a baseline document to calculate maximum potential hourly and annual emissions of both hazardous and criteria pollutants. Based on the current air emissions inventory, WIPP operations do not exceed the 10-ton-per-year emission limit for any individual hazardous air pollutant

Waste Isolation Pilot Plant 2001 Site Environmental Report

DOE/WIPP 02-2225

or the 25-ton-per-year limit for any combination of hazardous air pollutant emissions established in Subpart A of NESHAP.

Based on the initial 1993 air emissions inventory, the WIPP site is not required to obtain federal Clean Air Act permits. WIPP, in consultation with the NMED Air Quality Bureau, working in concert with data provided in the first air emissions inventory, was required to obtain a New Mexico Air Quality Control Regulation 702, Operating Permit (recodified in 1997 as 20.2.72 NMAC, "Construction Permits") for two primary backup diesel generators at the site. The only emission points where the WIPP site exceeds state threshold criteria requiring a permit are the backup diesel generators. WIPP completed all necessary requirements for emissions monitoring and sampling required by New Mexico Air Quality Permit 310-M-2. During 2001, the backup diesel generators were operated for approximately 28 of the 480 hours allowed by the permit. There were no malfunctions or abnormal conditions of operation that would cause a violation of the permit. Proposed facility modifications are reviewed to determine if they caused new air emissions and require permit applications.

WIPP's normal operations do not involve or entail any planned or expected releases of airborne radioactive materials to the workplace or the environment. Waste containers accepted for disposal at WIPP are required to meet the 10 CFR Part 835 external contamination limits. To ensure compliance, the containers are surveyed both prior to release from the generator sites and as the TRUPACT-II containers are opened at WIPP.

Since radioactive material remains in the waste containers, there are no emissions of radionuclides to the ambient air from DOE facilities during normal WIPP waste handling, and the public is not subjected to radioactivity from the WIPP facility. The WIPP 2001 NESHAP report concluded that WIPP was operated in compliance with the release standards of 40 CFR Part 191, Subpart A, and 40 CFR Part 61, Subpart H.

External doses to workers from the handling of contact-handled waste containers were estimated to be well within the DOE's "as low as reasonably achievable" goals and well below regulatory limits. Similarly, consequences to the public and workers as a result of the release of VOCs during disposal phase normal operations were shown to be many orders of magnitude below health-based limits.

3.2.6 Clean Water Act

Section 402 of the Clean Water Act (33 U.S.C. 1251 through 1376) establishes provisions for the issuance of permits for discharges into waters of the United States. The regulation defining the scope of the permitting process is contained in 40 CFR Part 122, Subpart A, Section (b)(1), and states that "...National Pollutant Discharge Elimination System (NPDES) program requires permits for the discharge of 'pollutants' from any 'point source' into waters of the United States."

In August 1997, WIPP submitted to the EPA a Notice of Intent (NOI) for Storm Water Discharges Associated with Industrial Activity under a NPDES Multi-Sector General

Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225

Permit. Permit NMR05A823 was issued February 23, 1998. This permit expired on October 30, 2000, and a NOI was submitted to the EPA on January 29, 2001, for coverage under NPDES Storm Water Multi-Sector General Permit for Industrial Activities.

As a condition of the multi-sector general permit, a P2 plan has been developed and implemented. The plan describes how the Best Management Practices and other requirements of the NPDES storm water regulations are being implemented at WIPP.

No sampling is required to demonstrate compliance with the WIPP Storm Water Permit unless a release occurs. Operational permit compliance activities are limited to quarterly inspections of retention basins, spill containment devices, reclamation sites, and site housekeeping practices. All requirements of the NPDES storm water regulations applicable to WIPP were met during 2001.

The NPDES sewage sludge regulations promulgated in 40 CFR §122.21 require all facilities that generate or dispose of sewage sludge to submit an information package describing sewage sludge management and disposal practices. This information is reviewed by the EPA to determine if a NPDES permit will be required for the disposal of sewage sludge at a facility.

Another implementing regulation under the Clean Water Act applicable to the WIPP project is 40 CFR Part 112, "Oil Pollution Prevention," which includes criteria and guidelines for the preparation and implementation of a facility's Spill Prevention, Control, and Countermeasures (SPCC) Plan (WP 02-EC.09). The WIPP SPCC Plan undergoes annual review and is revised as needed to reflect changes in facility activities and emergency equipment. The WIPP SPCC Plan was issued in November 1988. The revised plan was issued in June 1999.

On February 14, 1994, the DOE submitted an information package to the EPA Water Management Division and requested a written determination of whether a NPDES permit would be required for sewage sludge generated at WIPP. On March 31, 1994, the EPA Region VI Permits Issuance Section notified the DOE that they had received the information package. The agency determined that the information package was complete and, at a future date, would notify the DOE if a full and complete sewage sludge permit application would be required. To date this notification has not been made, indicating an application is not yet required.

On January 16, 1992, the NMED issued the original discharge plan (DP-831) for the WIPP sewage facility. DP-831, as amended through December 2001, allows the disposal of 23,000 gallons per day (gpd) of sewage effluent to the five lagoons; 2,000 gpd of nonhazardous brine water to the north evaporation cell; 8,000 gpd of nonhazardous brine water to the H-19 evaporation pond; and 100 gallons per year of neutralized acid to the domestic wastewater lagoons. Characterization samples are collected to appropriately disposition brines prior to discharge.

Waste Isolation Pilot Plant 2001 Site Environmental Report

DOE/WIPP 02-2225

The DOE submits quarterly discharge monitoring reports to the NMED to demonstrate compliance with the inspection, monitoring, and reporting requirements identified in the plan.

DP-831 requires quarterly sampling and analysis of the sewage system influent for nitrate, total Kjeldahl nitrogen, total dissolved solids (TDS), ^{238}Pu , $^{239+240}\text{Pu}$, ^{241}Am , ^{234}U , ^{235}U , ^{238}U , and ^{90}Sr .

3.2.7 Safe Drinking Water Act

The SDWA (42 U.S.C. 300f, et seq.) provides the regulatory strategy for protecting public water supply systems and underground sources of drinking water. The NMED notified WIPP in a September 9, 1992, letter that the WIPP public water supply was categorized as a nontransient, noncommunity system for reporting and testing requirements.

New Mexico water supply regulations mandate that when a public water supply system supplements other systems, that water system is treated as a single system for compliance sampling purposes. The Carlsbad municipal water supply system is contracted to provide raw water to WIPP from city-owned wells 50 km (31 mi) north of the site. Because of this contractual agreement, the city of Carlsbad completes the source, or point-of-entry, samples for the various chemical constituents at each well field source.

In a letter dated August 28, 1996, the NMED set the frequency for sampling lead and copper in the drinking water supply at ten samples every three years. The required samples were collected in July 1999 and the results were submitted to the NMED. All samples were below action levels as specified by New Mexico monitoring requirements for lead and copper in tap water. The next lead and copper sampling period will be in July 2002.

Bacterial samples were collected and reported monthly throughout 2001. All bacteriological/analytical results were below the SDWA regulatory limits.

3.2.8 National Historic Preservation Act

The NHPA (16 U.S.C. 470 et seq.) was enacted to protect the nation's cultural resources and establish the National Register of Historic Places. Federal agencies are required to coordinate NEPA compliance with the responsibilities of the NHPA to ensure that historic and cultural properties are given proper consideration in the preparation of NEPA documentation. Agency obligations under the NHPA, however, are independent from NEPA and must be complied with even when no additional NEPA documentation is required (i.e., for proposed projects not classified as major federal actions with significant environmental impacts, the DOE must still consider impacts to historic properties and sites). Where both NEPA and the NHPA are applicable, Environmental Assessments and EISs must integrate NHPA considerations along with other environmental impact analyses and studies (see 40 CFR §1502.25).

During 2001, one archaeological investigation was conducted to assess cultural resources in an area proposed for a range improvement. No artifacts were encountered.

3.2.9 Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (49 App. U.S.C.A. 1801 et seq; 49 CFR Parts 106 through 178) is one of the major transportation-related statutes that affects the DOE at WIPP. It provides for safe transportation of hazardous materials, including radioactive materials. The DOE complies with applicable U.S. Department of Transportation (DOT) regulations, corresponding NRC regulations, and DOE Orders for the transportation of hazardous materials. DOE Orders require the development of a transportation plan, and implementing procedures to ensure that the DOT regulations and requirements of each NRC-certified package is met. DOE Orders also require the use of the DOE TRANSCOM system to monitor shipments, shipment inspections, and preshipment notifications to the states.

Other federal transportation regulations applicable to WIPP include:

- Title 10 CFR Part 71, NRC requirements for packaging, preparing, and transporting licensed material,
- Title 40 CFR Part 262, Subpart B, requirements for use of the hazardous waste manifest., and
- Title 49 CFR Part 397, Subpart D, requirements for routing of radioactive materials.

The WTS Shipping Coordination Section implements applicable DOT and EPA regulations and DOE Orders for the transport of hazardous waste and hazardous materials from WIPP through the use of a transportation plan and implementing procedures. These implementing procedures address the classification, labeling, marking, placarding, and the shipping documentation needed to transport these materials in a safe and regulatory compliant manner. In a similar manner, shipping sites implement applicable DOT and EPA regulations and DOE Orders for the transport of TRU waste to WIPP.

3.2.10 Packaging and Transporting Radioactive Materials

Regulations for transportation of radioactive materials, under the authority of the DOT, are found in 49 CFR Parts 171 through 178. If the quantity of radioactive material exceeds certain limits, as determined by 49 CFR §173.431, a Type B shipping container (packaging) must be used. The specific requirements for the shipment of radioactive materials and requirements applicable to the Type B packages to be used to transport waste to the WIPP facility are detailed in 49 CFR Parts 171 through 173, 40 CFR Part 262, and the NRC Certificate of Compliance (C of C) for the package. Regulations for Type B packaging, under the authority of the NRC, are found in

Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225

10 CFR Part 71, "Packaging and Transportation of Radioactive Materials." The WIPP Land Withdrawal Act requires that TRU waste containers shipped to WIPP shall be transported using packages which have had the design certified by the NRC and which have been determined by the NRC to satisfy its QA requirements.

Additional transportation requirements for the mixed waste shipments (i.e., TRU mixed wastes) are detailed in 40 CFR Part 262. The appendix to Part 262 provides an example of a uniform hazardous waste manifest and instructions to waste generators and shippers of hazardous wastes.

Contact-handled TRU waste is shipped in the TRUPACT-II and the HalfPACT. The HalfPACT is a shorter version of the TRUPACT-II; it was designed to transport heavier contact-handled TRU waste containers. The NRC certified the TRUPACT-II container on August 30, 1989. Since 1989, expansion of the TRUPACT-II payload envelope has been accomplished through applications to the NRC for revisions of the TRUPACT-II Safety Analysis Report for Packaging and the C of C, when applicable. The current revision of the TRUPACT-II C of C, No. 11, expires June 30, 2004. The current revision of the HalfPACT C of C, No. 9279, expires October 30, 2005.

Remote handled waste will be shipped in the RH-72B and the CNS 10-160B casks. The current C of C for the RH-72B cask expires February 8, 2005. The current revision of the C of C for the 10-160B expires October 31, 2005.

For the transportation of TRU waste emergency response is addressed by defense in depth. The first line of defense is the packaging itself. The NRC-certified packagings are able to survive "hypothetical" accident conditions without loss of contents. The testing process subjects the package to forces that are more severe than those that would be experienced in a vehicular accident.

The second line of defense rests with the driver. The qualifications for the drivers is set at a high mark. The driver's record is reviewed for at least five years. The driver must be accident free and moving violation free in this time period. In addition to prior skills, the driver must attend and pass WIPP-specified training. To date, WIPP drivers have traveled over miles without a vehicle accident.

In the event an incident should occur, the DOE has trained emergency responders and hospital personnel along the routes in the actions to mitigate the incident. In addition, to the training provided to the first responders, the DOE and the states have conducted "WIPPTREXes" (training exercises) to provide the emergency response personnel the opportunity to put into practice the training they receive. In addition to the training the DOE has an Incident/Accident Response Team that is on standby to respond to an incident to assist the on-scene Incident Commander in the mitigation of the incident.

3.3 Other Significant Accomplishments and Ongoing Compliance Activities

3.3.1 Environmental Compliance Assessment Program

The Environmental Compliance Assessment Program plays a major role in the overall program for environmental protection activities at WIPP. The program was developed to determine if impactive or potentially impactive facility activities protect human health and the environment and if these activities are in compliance with applicable federal, state, and local requirements; with permit conditions and requirements; and with best management practices.

3.3.2 Environmental Management System

WTS has implemented an EMS that conforms to the requirements of ISO 14001. ISO 14001 is the specific standard within the ISO 14000 family of standards that provides specifications for EMSs. The WTS EMS received third-party registration on August 5, 1997, following a comprehensive audit by Advanced Waste Management Systems, Inc. This recognition provided independent verification of the disciplined and systematic approach WTS applies to achieve excellent environmental performance while operating WIPP. The EMS, including environmental aspects, objectives, and targets, is reviewed and updated by WTS senior management at least annually.

Advanced Waste Management Systems, Inc. performed two surveillance audits of the WTS EMS in 2001. There were no nonconformance issues identified during the 2001 surveillance period. Two third-party surveillance audits are scheduled during 2002 as required for continued ISO 14001 registration.

Integration of WIPP's EMS with other WTS, DOE, and EPA programs, such as the Voluntary Protection Program, the Integrated Safety Management System, and the National Environmental Performance Track, is under way. WTS also shares its EMS experience with other interested organizations in both the public and private sectors to achieve even broader positive environmental results.

Additional information, including the WTS Environmental Management Policy, is available to the public via the world-wide-web or by calling the information line at 1-800-336-WIPP.

3.3.3 Pollution Prevention Committee

The P2 Committee was formed in 1993 with a representative from each department. The primary purpose of this committee is to foster recycling activities at WIPP. The committee prepared a waste minimization charter, which outlines the committee's responsibilities.

On Earth Day, 2001, the committee conducted activities to heighten employee awareness of the dangers of household chemicals. Information was also provided to

WIPP employees on nonhazardous substitutions for hazardous household cleaning products.

The WIPP P2 Committee celebrated America Recycles Day in November 2001, using a display describing the "Trail of Trash." This display demonstrated how much trash is generated by the average New Mexico family, how it is disposed of either in the landfill or by recycling, and how the items that are recycled are made into useable products.

During October 2001, Energy Month was celebrated with posters being hung around site emphasizing the importance of saving energy.

3.3.4 Environmental Training

Environmental training was provided to personnel associated with environmental operations at WIPP. Training courses included technical topics (e.g., RCRA sampling), EMS, basic environmental safety and health training, and general sitewide training such as the required General Employee Training module. These courses were conducted both on-site by WIPP personnel and off-site by various contractors.

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

Table 3.3 - Activities Associated with Major Environmental Regulations Applicable to the WIPP Project

Statute/Regulation	Related Activity
Atomic Energy Act of 1954 (42 U.S.C. 2278a) and 40 CFR Part 191, Subpart A	WIPP was authorized by the DOE and the EPA to open. Monitoring/reporting began upon first receipt of waste, March 26, 1999.
Clean Air Act	Monitoring/reporting began upon first receipt of waste, March 26, 1999.
Clean Water Act	Quarterly inspections of best management practices to comply with (storm water retention basins) NPDES storm water general permit (NMR05A823).
Comprehensive Environmental Response, Compensation, and Liability Act/SARA	No CERCLA site cleanup required. Reports filed as required under SARA for hazardous substances are maintained on site.
Endangered Species Act of 1973	In November 1996, WIPP completed the 1996 Threatened and Endangered Species Survey. The survey is part of the analysis required for the SEIS-II. There were no threatened or endangered species located on WIPP land. Individual permits to collect biological samples and to band nonendangered species of raptors are maintained. Consultation with federal and state agencies is not required.
Federal Land Policy and Management Act	An MOU between the DOE and the BLM was issued in July 1994. This MOU outlines the responsibilities the BLM and the DOE have with regard to land use management for the withdrawal area.
Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136-136y)	All pesticides must be approved by Industrial Safety and Hygiene.
Hazardous Materials Transportation Act	Appropriate shipping papers accompany hazardous materials and hazardous wastes shipped off-site to ensure compliance with the act.
National Environmental Policy Act (as supplemented by DOE Order 451.1B, and 10 CFR Part 1021)	The 2001 Annual Mitigation Report for the Waste Isolation Pilot Plant (NEPA ID# WIP:00:001) was issued July 2001, in accordance with the requirement of DOE Order 451.1B, <i>National Environmental Policy Act Compliance Program</i> . This order requires DOE facilities to track and annually report progress in implementing a commitment for environmental impact mitigation that is essential to render the impacts of a proposed action nonsignificant or that is made in the ROD.
	The Environmental Assessment for Conducting Astrophysics and Other Basic Science Experiments at the WIPP Site (DOE/EA-1340) was issued in January 2001. This Environmental Assessment was required to support a congressional directive to make maximum use of existing WIPP facilities to further the scientific missions assigned to the DOE by Congress.

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

Table 3.3 - Activities Associated with Major Environmental Regulations Applicable to the WIPP Project

Statute/Regulation	Related Activity
National Historic Preservation Act	Activities requiring excavation in previously undisturbed areas are surveyed by licensed, permitted archaeologists. Required reports are submitted to the New Mexico State Historic Preservation Officer.
New Mexico Air Quality Control Act (NMSA 1978 §74-2)	During 2001, the backup diesel generators were operated for approximately 28 of the 480 hours allowed by the permit. There were no malfunctions or abnormal conditions of operation that would cause a violation of the permit.
New Mexico Water Quality Act	The NMED has issued a ground water discharge plan (DP-831) to WIPP for the disposal of site generated wastewater. The DOE submits quarterly discharge monitoring reports to the NMED Groundwater Quality Bureau to comply with the requirements of DP-831.
New Mexico Wildlife Conservation Act	See "Endangered Species Act."
Resource Conservation and Recovery Act	Hazardous-waste generator compliance: All site generated hazardous wastes were transported offsite within the 90-day accumulation period. Permit compliance: NMED granted RCRA permit NM4890139088 effective November 26, 1999. Underground Storage Tanks: Annual registration fee paid.
Toxic Substances Control Act (15 U.S.C. 2301 et seq)	Procurement of asbestos- or PCB-containing materials not allowed. Other portions of the Toxic Substances Control Act are not applicable.
Safe Drinking Water Act	The WIPP public water system is characterized as a nontransient, noncommunity system (NMED, September 9, 1992). Drinking water is piped from the Carlsbad, New Mexico, municipal system and the city of Carlsbad is responsible for compliance.

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

Table 3.4 - Primary DOE Orders Affecting the WIPP Environmental Program

Order No.	Title	Annotation
DOE Order 5400.1 Paragraphs 2B, 4B, and 4C of Chapter II, and 2D and 3B of Chapter III were canceled and replaced by DOE O 231.1	General Environmental Protection Program	Establishes environmental protection program requirements, authorities, and responsibilities for DOE operations for ensuring compliance with federal and state environmental protection laws and regulations, federal executive orders, and internal department policies.
DOE Order 5400.5 Paragraph 1A(3)(A) of Chapter II is canceled by DOE O 231.1	Radiation Protection of the Public and the Environment	Establishes standards and requirements for operations of the DOE and DOE contractors with respect to protection of the public and the environment against undue risk from radiation.
DOE O 231.1, Change 2	Environmental, Safety, and Health Reporting	Ensures collecting and reporting on environment, safety, and health information.
DOE O 225.1A, cancels DOE O 225.1	Accident Investigation	Prescribes requirements for conducting investigations of accidents and preventing recurrence of such accidents.
DOE O 414.1A	Quality Assurance	Promotes effective management through performance requirements and technical standards.
DOE O 435.1	Radioactive Waste Management	Promotes radioactive waste management in a manner that is protective of workers, public health and safety, and the environment.
DOE O 451.1B	National Environmental Policy Act Compliance Program	Establishes DOE policy for implementation of the NEPA of 1969 (Pub. L. 91-190).
DOE O 460.1A	Packaging and Transportation Safety	Establishes safety requirements for the proper packaging and transporting of DOE offsite shipments and onsite transfers of hazardous materials and for model transportation.
DOE 5480.23	Nuclear Safety Analysis Reports	Establishes uniform requirements for the preparation and review of safety analyses of DOE operations that include the following: identification of hazards, their elimination or control, assessment of risk, and documented management authorization of their operation.
DOE O 151.1	Comprehensive Emergency Management System	Establishes requirements for comprehensive planning, preparedness, response, and recovery activities of emergency management programs for the DOE and for programs requiring DOE assistance.
DOE O 430.1A	Life-Cycle Assessment Management	Establishes procedures to plan, acquire, operate, maintain, and dispose of physical assets as valuable national resources.

Waste Isolation Pilot Plant 2001 Site Environmental Report DOE/WIPP 02-2225

**Table 3.5 - Active Environmental Permits and Approvals for the Waste Isolation Pilot Plant (as of December 31, 2001)
(Does Not Include RCRA Permits)**

Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
Department of the Interior, BLM	Right-of-Way for Water Pipeline	NM53809	08/17/83	In Perpetuity	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for the North Access Road	NM55676	08/24/83	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Railroad	NM55699	09/27/83	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Dosimetry and Aerosol Sampling Sites	NM63136	07/31/86	07/31/11	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Seven Subsidence Monuments	NM65801	11/07/86	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Aerosol Sampling Site	NM77921	08/18/89	08/18/19	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Two Survey Monuments	NM82245	12/13/89	12/13/19	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Telephone Cable	NM46029	07/03/90	09/04/11	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for SPS Powerline	NM43203	02/20/96	10/19/11	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for South Access Road	NM46130	09/26/94	08/17/31	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Duval Telephone Line	NM60174	11/06/96	03/08/15	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells AEC-7 and AEC-8	NM300603-SLU-12	07/23/75	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for ERDA-6	NM300605-SLU-29	05/12/75	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Monitoring Wells C-2752 (ERDA-9) and C-2765 (H-1)	NM0606-SLU-34	03/31/76	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for ERDA 11	NM0607-LUP-63	08/19/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for ERDA-13	NM0606-SLU-38	07/15/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for ERDA-14	NM0607-TUP-62	06/29/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE

Waste Isolation Pilot Plant 2001 Site Environmental Report DOE/WIPP 02-2225

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Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
Department of the Interior, BLM	Right-of-Way for Monitoring Wells C-2762 (H-2) and C-2764 (H-3)	NM0606-SLU-41	07/14/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells P-1, P-2, P-3, and P-4	NM060-SLU-48	05/16/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells P-5, P-6, and P-7	NM060-SLU-50	05/16/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells P-8, P-9, P-12, P-13, P-20, and Monitoring Wells C-2637 (P-14), C-2686 (P-15), C-2756 (P-18)	NM060-SLU-52	05/16/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells P-10, P-11, P-16, P-19, P-21, and Monitoring Well C-2774 (P-17)	NM0606-SLU-54	11/08/76	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Archaeological Clearance for Wells P-5 – P-21	NM-6-5 Cooperative Agreement	05/19/81	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Access Road for Monitoring Wells C-2639 (WIPP-12) and C-2748 (WIPP-13)	NM-6-5 Cooperative Agreement	04/19/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Meteorological Tower	NM060-SLU-43	02/04/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Aerosol Sampler	NM067-LUP-221	05/25/85	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for North Access Road Batch Plant	NM060-LUP-212	10/09/84	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Construction Landfill	NM067-LUP-219	12/08/95	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Monitoring Well C-2664 (Cabin Baby)	NM0606-SLU-40	07/14/76	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Seismic Monitoring Station	NM85426	09/23/91	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
Department of the Interior, BLM	Right-of-Way for Monitoring Wells C-2684 (WIPP-18), C-2755 (WIPP-19), C-2754 (WIPP-21) and Well WIPP-22	NM-6-5 Cooperative Agreement	03/02/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Well WIPP-15	NM-6-5 Cooperative Agreement	01/19/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Wells C-2725 (H-4A), C-2775 (H-4B), and C-2776 (H-4C)	NM-6-5 Cooperative Agreement	04/27/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Monitoring Wells C-2723 (WIPP-25), C-2724 (WIPP-26), C-2722 (WIPP-27), C-2636 (WIPP-28), C-2743 (WIPP-29), and C-2727 (WIPP-30)	NM-6-5 Cooperative Agreement	06/14/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Monitoring Well C-2748 (WIPP13)	NM-6-5 Cooperative Agreement	05/03/78	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Well WIPP-11	NM-6-5 Cooperative Agreement	12/19/77	None	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Dosimetry and Aerosol Sampling Sites	NM63136	07/31/86	07/31/11	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way for Aerosol Sampling Sites	NM77921	10/03/89	08/18/19	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Right-of-Way easement for accessing state trust lands in Eddy and Lea Counties	NM25430	02/29/00	09/28/04	Active	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE
Department of the Interior, BLM	Free-Use Caliche Extraction Permit	NM105004	10/12/00	10/12/01	Inactive Will be renewed when required	Environmental Monitoring	Issued by BLM - WIPP signature not required	DOE

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
U.S. Department of the Interior, Fish and Wildlife Service	Concurrence that WIPP construction activities will have no significant impact on federally listed threatened or endangered species	None	05/29/80	None	Active	Environmental Monitoring	N/A	N/A
U.S. DOT Research and Special Programs Administration	Hazardous materials transporter registration	082801 002021J	8/31/01	6/30/02	Active	Shipping Coordination	R. White, Transportation Engineer 6/5/01	WTS
U.S. EPA	National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit issued for use in the State of New Mexico	NMR05A823	01/29/01	09/29/05	Active	Environmental Compliance	Ines Triay, Manager, DOE/CBFO	DOE/CBFO
New Mexico Commissioner of Public Lands	Right-of-Way for High Volume Air Sampler	RW-22789	10/03/85	10/03/20	Active	Environmental Monitoring	Stewart Jones, Manager Environmental Monitoring	WTS
NMED Groundwater Bureau	Discharge Permit	DP-831	07/03/97	07/03/02	Active	Environmental Compliance and Facility Operations	G. E. Dials, Manager 12/16/96	DOE
NMED Air Quality Bureau	Operating Permit for two backup diesel generators	310-M-2	12/07/93	None	Active	Environmental Compliance and Facility Operations	A. E. Hunt Project Manager 06/18/93	DOE
NMDG&F	Concurrence that WIPP construction activities will have no significant impact on state-listed threatened or endangered species	None 07/25/83	05/26/89	None	Active	Environmental Monitoring	N/A	N/A
NMED UST Bureau	Underground Storage Tanks	NMED1198 (Number changes annually)	07/01/01	06/30/02	Active	Environmental Compliance and Facility Operations	V. Daub, Deputy Project Site Manager 06/18/92	DOE
NMED Solid Waste Bureau	Solid Waste Hauler Registration	006655	12/01/99	None	Active	N/A – Issued to Cast Trucking and Tri-State Motor Transit	N/A	N/A
NMED Solid Waste Bureau	Solid Waste Hauler Registration	040889	01/16/01	None	Active	N/A – Issued to Tri-State Motor Transit Co.	N/A	N/A

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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(Does Not Include RCRA Permits)**

Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
New Mexico State Engineer Office	Monitoring Well Exhaust Shaft Exploratory Borehole	C-2801	02/23/01	None	Active	Environmental Compliance and Geotechnical Engineering	H. E. Johnson, DOE	DOE
New Mexico State Engineer Office	Monitoring Well Exhaust Shaft Exploratory Borehole	C-2802	02/23/01	None	Active	Environmental Compliance and Geotechnical Engineering	E. K. Hunter, Asst. Manager ONTWO 09/10/97	DOE
New Mexico State Engineer Office	Monitoring Well Exhaust Shaft Exploratory Borehole	C-2803	02/23/01	None	Active	Environmental Compliance and Geotechnical Engineering	E. K. Hunter, Asst. Manager ONTWO 09/10/97	DOE
New Mexico State Engineer Office	Appropriation: WQSP-1 Well	C-2413	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96 DOE	DOE
New Mexico State Engineer Office	Appropriation: WQSP-2 Well	C-2414	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE
New Mexico State Engineer Office	Appropriation: WQSP-3 Well	C-2415	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE
New Mexico State Engineer Office	Appropriation: WQSP-4 Well	C-2416	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE
New Mexico State Engineer Office	Appropriation: WQSP-5 Well	C-2417	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE
New Mexico State Engineer Office	Appropriation: WQSP-6 Well	C-2418	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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New Mexico State Engineer Office	Appropriation: WQSP-6a Well	C-2419	10/21/96	None	Active	Environmental Compliance and Environmental Monitoring	E. K. Hunter, Asst. Manager ONTWO 07/03/96	DOE
New Mexico State Engineer Office	Monitoring Well AEC-7	C-2742	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well AEC-8	C-2744	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well Cabin Baby	C-2664	07/30/99	None	Active	Environmental Monitoring	Richard A. Jepson, SNL 07/29/99	DOE
New Mexico State Engineer Office	Monitoring Well D-268	C-2638	01/12/99	None	Active	Environmental Monitoring	G. T. Basabilvaso, DOE 12/10/98	DOE
New Mexico State Engineer Office	Monitoring Well DOE-1	C-2757	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well DOE-2	C-2682	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well ERDA-9	C-2752	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-1	C-2765	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-2A	C-2762	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-2B1	C-2758	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-2B2	C-2763	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-2C	C-2759	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-3B1	C-2764	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-3B2	C-2760	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-3B3	C-2761	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-3D	pending	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE

Waste Isolation Pilot Plant 2001 Site Environmental Report DOE/WIPP 02-2225

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New Mexico State Engineer Office	Monitoring Well H-4A	C-2725	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-4B	C-2775	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-4C	C-2776	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-5A	C-2746	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-5B	C-2745	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-5C	C-2747	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-6A	C-2751	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-6B	C-2749	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-6C	C-2750	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-7A	C-2694	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-7B1	C-2770	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-7B2	C-2771	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-7C	C-2772	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-8A	C-2780	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-8B	C-2781	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-8C	C-2782	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-9A	C-2785	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-9B	C-2783	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE

Waste Isolation Pilot Plant 2001 Site Environmental Report DOE/WIPP 02-2225

**Table 3.5 - Active Environmental Permits and Approvals for the Waste Isolation Pilot Plant (as of December 31, 2001)
(Does Not Include RCRA Permits)**

Granting Agency	Type of Permit	Permit Number	Granted/ Submitted	Expiration	Current Permit Status	WTS Owner	Signed By/Title	Signed For
New Mexico State Engineer Office	Monitoring Well H-9C	C-2784	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-10A	C-2779	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-10B	C-2778	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-10C	C-2695	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-11B1	C-2767	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-11B2	C-2687	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-11B3	C-2768	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-11B4	C-2769	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-12	C-2777	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-14	C-2766	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-15	C-2685	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-16	C-2753	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-17	C-2773	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-18	C-2683	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well H-19B0	C-2420	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B1	C-2420	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B2	C-2421	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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New Mexico State Engineer Office	Monitoring Well H-19B3	C-2422	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B4	C-2423	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B5	C-2424	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B6	C-2425	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well H-19B7	C-2426	01/25/95	01/31/98	Inactive Renew when necessary	Environmental Monitoring	Harold F. Klaus, Jr. DOE 11/09/94	DOE
New Mexico State Engineer Office	Monitoring Well P-14	C-2637	01/02/99	None	Active	Environmental Monitoring	G. T. Basabilvaso, DOE 11/17/98	DOE
New Mexico State Engineer Office	Monitoring Well P-15	C-2686	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well P-17	C-2774	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well P-18	C-2756	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-12	C-2639	01/12/99	None	Active	Environmental Monitoring	G. T. Basabilvaso, DOE 11/17/98	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-13	C-2748	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-18	C-2684	04/17/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-19	C-2755	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-21	C-2754	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-25	C-2723	07/26/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-26	C-2724	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE

**Waste Isolation Pilot Plant 2001 Site Environmental Report
DOE/WIPP 02-2225**

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New Mexico State Engineer Office	Monitoring Well WIPP-27	C-2722	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 07/24/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-28	C-2636	01/12/99	None	Active	Environmental Monitoring	G. T. Basabilvaso, DOE 11/17/98	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-29	C-2743	11/06/00	None	Active	Environmental Monitoring	D. C. Lynn, WTS Land Use Coordinator, 10/23/00	DOE
New Mexico State Engineer Office	Monitoring Well WIPP-30	C-2727	08/04/00	None	Active	Environmental Monitoring	G. T. Basabilvaso, DOE 07/31/00	DOE